ESTABLISHED 1856.

HENRY MAURER & SON,

MANUFACTURERS OF

FIRE-PROOF BUILDING MATERIALS,

OF EVERY DESCRIPTION AND FOR ALL PURPOSES.

FLAT HOLLOW CLAY ARCHES,

PARTITION AND FURRING BLOCKS,

COLUMN AND GIRDER PROTECTION,

ROOF AND CEILING BLOCKS,

POROUS TERRA COTTA of all Kinds and Sizes.

—ALSO—

FIRE BRICK.

OFFICE & DEPOT,

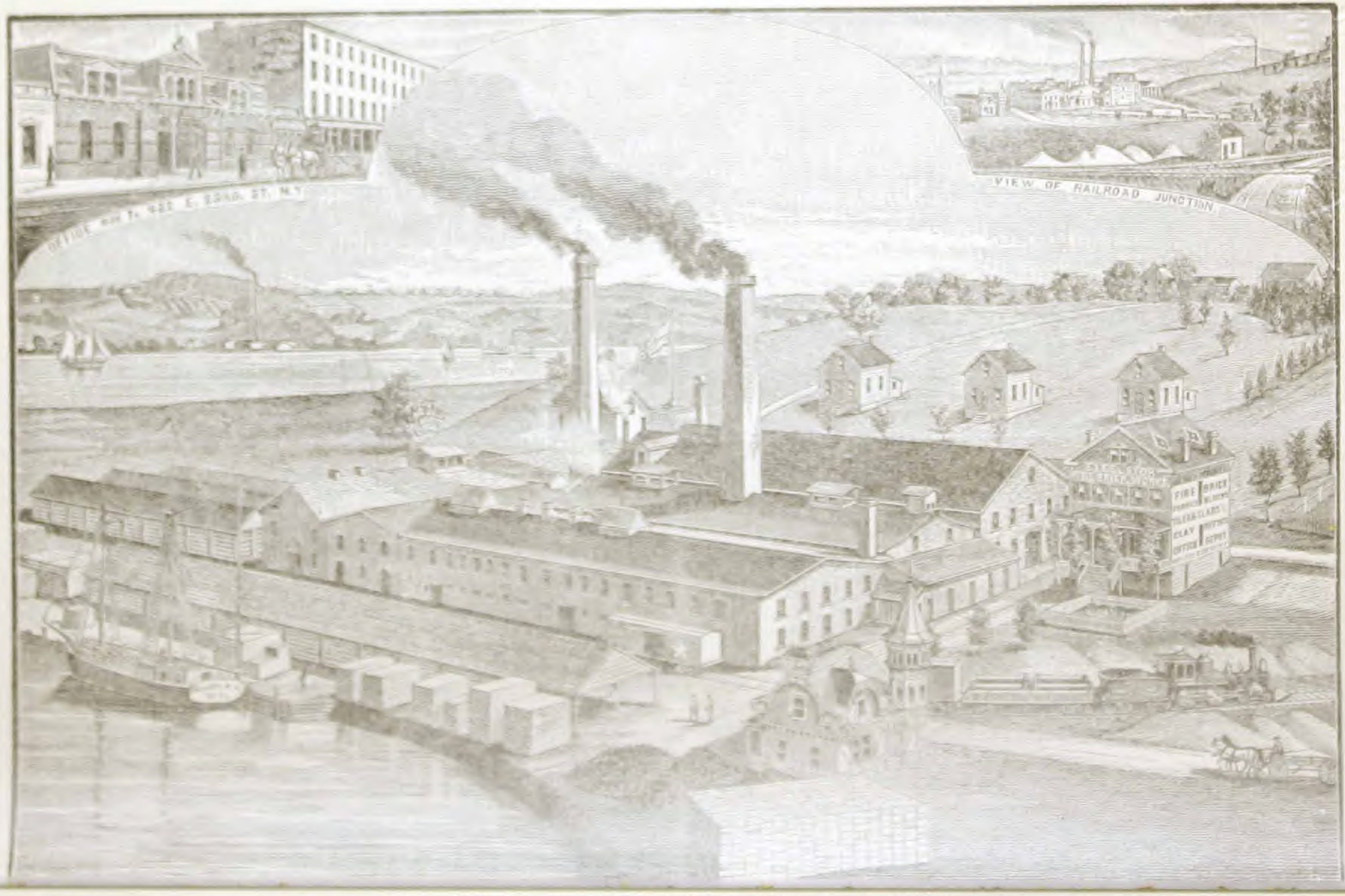
420 EAST 23d ST., NEW YORK.

WORKS,

Maurer's, New Jersey.

SECOND EDITION.

1889.
STEWART, WARREN & CO., STEAM PRINTERS AND PUBLISHERS,
29 Howard Street, New York.



View of Works—Maurer's, N. J. (on Central Railroad of N. J.)

INTRODUCTORY.

The practicability and efficiency of Hollow Burnt Clay Blocks and Tiles and Porous Terra-Cotta Material in the construction and protection of buildings against loss by fire, has been fully and satisfactorily demonstrated, and the security it offers is so palpable, that the best informed Architects and Builders in the country recommend its use in all structures where life and property is jeopardized.

Since this important feature in buildings has become an established fact—the demand for "Hollow Brick" has increased largely, so much so that within the past year we have been obliged to greatly exceed our former capacity in order to meet the requirements of this important branch of industry. Our works are NOW THE MOST EXTENSIVE of the kind in the country.

The advantages we possess for procuring and handling the raw material are unsurpassed, having our own Clay beds easy of access within a few feet of our works—situated on the Sound at Maurer's, near Perth Amboy and Woodbridge, N. J., with Railroad switches alongside, an extensive water-frontage, and large Dock-room, which gives us every facility necessary for shipments to all points reached by Rail or Water. We are prepared to furnish estimates and execute promptly all contracts intrusted to our care. Correspondence solicited and any information not contained in the following pages of this catalogue gladly furnished on application.

HENRY MAURER & SON.

View of Works—Maurer's, N. J. (on Central Railroad of N. J.)

We would add that our material is *thoroughly* FIRE-PROOF; by that we mean that it will NOT burn, it being made of Fire Clay and subjected, in course of manufacture, to a much greater heat than it may receive at any time when put in buildings.

N. B. We use no Plaster, Lime, Cement, or Ashes, in course of manufacture, nothing but Fire Clay, which in itself is FIRE-PROOF.

———(:o:)———

BELOW WE GIVE A LIST OF SOME OF THE BUILDINGS WE HAVE SUPPLIED WITH OUR MATERIALS.

OFFICE BUILDINGS.

NEW YORK TIMES BUILDING,	-	Park Row and Nassau St., N. Y. C.
EQUITABLE LIFE ASSURANCE SOCIETY,		Bway, Pine, Nassau and Cedar St., "
GALLATIN NATIONAL BANK,	- -	34 & 36 Wall St., "
CENTRAL TRUST CO.,	- - -	54 Wall St., "
CHEMICAL NATIONAL BANK,	-	Bway and Chambers St., "
MERCANTILE EXCHANGE,	-	Harrison and Hudson Sts., "
"ASTOR" BUILDING,	- - - -	12 Wall St., "
"TOWER" "	- - -	50 Broadway, "
NEW YORK PRODUCE EXCHANGE,	-	Broadway and Beaver St., "
"MILLS" BUILDING,	- - -	Broad and Wall Sts., "
MANHATTAN NATIONAL BANK,	- - -	Wall St., "
MERCHANTS " "	- - - -	Wall St., "
"MORTIMER" BUILDING,	- -	Wall cor. New Sts., "
EAGLE INSURANCE BUILDING,	- -	Wall cor. Pearl Sts., "
"ASTOR" BUILDING,	- -	Broadway near Wall St., "
WESTERN UNION TELEGRAPH BUILDING,		- Broad near Wall St., "
WESTERN UNION TELEGRAPH BUILDING,		5th Ave. and 23d St., "
CONTINENTAL NATIONAL BANK,	-	Nassau and Pine Sts., "
"DUNCAN" BUILDING,	- - - -	11 Pine St., "
"WHITE" "	- -	Broadway and Franklin St., "
CENTRAL SAFE DEPOSIT CO'S. BUILDING,		42d St. and 5th Ave., "
GORHAM MF'G CO'S. BUILDING,	-	19th St. and Broadway, "
COMMERCIAL UNION INSURANCE BUILDING,		Pine and William Sts. "
AMERICAN BANK NOTE CO'S.	"	- New Church St., "
POTTER BUILDING,	-	Nassau, Beekman and Park Row, "
"DREXEL" BUILDING,	-	5th and Chestnut Sts., Philadelphia, Pa.
"HAZELTINE" "	- - -	Chestnut St., " "

OFFICE BUILDINGS, (*Continued.*)

REAL ESTATE TRUST CO.,	Chestnut St., Philadelphia, Pa.
PENNSYLVANIA " "	" " " "
PROVIDENT LIFE & TRUST CO.,	" " " "
" WOOD " BUILDING, 4th and	" " " "
NORTHWESTERN NATIONAL BANK	" " " "
CHESTNUT ST. " "	" " " "
LEHIGH VALLEY R. R. CO'S. BUILDINGS,	Mauch Chunk, Pa.
NATIONAL SAFE DEPOSIT CO.,	Washington, D. C.
" PIERCE " BUILDING,	Boston, Mass.
BOSTON DAILY GLOBE,	" "
GARDNER BUILDING,	" "

APARTMENT HOUSES,

NAVARRO APARTMENTS,	59th St. and Central Park, N. Y. C.
KNICKERBOCKER APARTMENTS,	28th and 5th Ave., "
APARTMENTS, "	30th and Madison Ave., "
"RANDOLPH" "	18th St. near 5th Ave., "
CUMBERLAND "	22d St. and Broadway, "
" ALBERT " "	11th St. and University Place. "
DALHOUSIE, "	59th St. near 5th Ave., "
" TUMBRIDGE " "	W. 10th St., near 6th Ave., "
APARTMENTS, "	66th St. and Park Ave., "
" "	14th St. and Ave. C, "

RESIDENCES.

W. H. VANDERBILT, ESQ.,	5th Ave., 51st and 52d Sts., N. Y. C.
CORNELIUS VANDERBILT, ESQ.,	5th Ave. and 57th St., "
HENRY VILLARD, ESQ.,	Madison Ave., 50th and 51st Sts., "
H. H. COOK, ESQ.,	5th Ave. and 78th St., "
ROBERT L. STUART, ESQ.,	5th Ave. and 68th St., "
ALFRED M. HOYT, ESQ.,	5th Ave. and 75th St., "
PETER DOELGER, ESQ.,	100th St. and Riverside Drive, "
CYRUS W. L. EIDLITZ, ESQ.,	86th St. " " " "
J. A. GRISWOLD, ESQ.,	34th St., near 5th Ave., "
RESIDENCE ————	72d St., near Madison Ave., "

MISCELLANEOUS.

METROPOLITAN OPERA HOUSE.	Broadway, 39th and 40th Sts., N. Y. C.
MOUNT SINAI HOSPITAL,	66th St. and Lexington Ave., "
SAINT VINCENT'S "	12th St., near 7th Ave., "
GOVERNMENT BUILDINGS,	Washington, D. C.
BRUSH ELECTRIC LIGHT CO.,	210 Elizabeth St., N. Y. C.

MISCELLANEOUS, (*Continued.*)

MANHATTAN ELECTRIC LIGHT CO., -	80th and 81st St., E. R., N. Y. C.
WESTERN ELECTRIC MFG. CO., - -	Greenwich St., "
MANHATTAN POWER CO., - - -	25 Walker St., "
"ISABELLA" HOME, - -	190th St. and 10th Ave., "
BROADWAY THEATRE, - -	41st St. and Broadway, "
CENTRAL TURN VEREIN, - -	67th St., near 3d Ave., "
BELVIDERE HOTEL, - - -	18th St. and 4th Ave., "
GARFIELD SAFE DEPOSIT CO., -	23d St. and 6th Ave., "
HOTEL "VENDOME," (addition) -	41st St. and Broadway, "
N. Y. ATHLETIC CLUB HOUSE, -	55th St. and 6th Ave., "
OCEAN STEAMSHIP CO'S PIER. -	Foot Spring St., N. R., "
ST. GEORGE'S CLERGY HOUSE, -	16th St., near 3d Ave., "
EDEN MUSEE, - - -	23d St., near 6th Ave., "
THEOLOGICAL INSTITUTE, -	9th Ave. and 21st St., "
EDISON ELECTRIC LIGHT CO., -	908 Sansom St., Phila., Penn.
TAMPA BAY HOTEL, - - - - -	Tampa, Fla.
CENTRAL R. R. OF NEW JERSEY, (Depot) -	Jersey City, N. J.
DICKINSON LIBRARY. - - - -	Carlisle, Penn.
PITTSBURGH JAIL. - - - - -	Pittsburgh, Penn.
FIRST NATIONAL BANK, - - - -	Frankford, Penn.
" " " - - - - -	Pittsburgh, Penn.
"MILLIKEN" HOUSE, - - - - -	Boston, Mass.
CHURCH OF THE REDEMPTIONIST FATHERS. - -	" "
SCHMIDT & FRIDAY'S BUILDINGS, - - -	Pittsburgh, Penn.
BARBOUR FLAX SPINNING CO., - - -	Paterson, N. J.
N. Y. STATE LUNATIC ASYLUM, (addition) - -	Utica, N. Y.
ATHENEUM BUILDING, - - - - -	Boston, Mass.

And numerous others in various parts of the U. S.

AS TO OUR ABILITY OF EXECUTING CONTRACTS PROMPTLY AND SATISFACTORILY, WE REFER WITH PLEASURE TO THE FOLLOWING GENTLEMEN:

ARCHITECTS.

GEORGE B. POST, - - - -	15 Cortlandt St., N. Y. C.
J. C. CADY & Co., - - -	111 Broadway, "
H. J. HARDENBERGH, - -	23d St. and 5th Ave., "
WILLIAM SCHICKEL & Co., - -	346 Broadway, "
W. WHEELER SMITH, - - -	9 Wall St., "
MCKIM, MEAD & WHITE, - -	57 Broadway, "
HUBERT, PIRSSON & Co., -	28th St. and Madison Ave., "
AUGUSTUS HATFIELD. - - -	4 Stone St., "
CLUSS & SCHULZE, - - - - -	Washington, D. C.

HENRY MAURER & SON, FIRE-PROOF BUILDING MATERIALS.

BUILDERS.

MARC EIDLITZ & SON,	123 E. 72d St., N. Y. C.
JOHN J. TUCKER,	37 W. 12th St., "
ROBERT L. DARRAGH,	1539 Broadway, "
C. T. WILLS,	10 W. 23d St., "
RICHARD DEEVES,	66 W. 83d St., "
DAVID H. KING, JR.,	Mills Building, "
JAMES B. SMITH,	18 Broadway, "
F. & W. E. BLOODGOOD,	8 York St., "
MORAN & ARMSTRONG,	62d St. and 1st Ave., "

HOSPITALS.

RUPTURED AND CRIPPLED HOSPITAL,	42d St. and Lexington Ave., N. Y. C.
HOSPITAL,	16th St. and E. R., "
GERMAN HOSPITAL, (addition)	66th St., near 4th Ave., "
BELLEVUE " "	26th St. and 1st Ave., "
PRESBYTERIAN HOSPITAL, (addition)	70th, 71st St. and Mad. Ave., "

BREWERIES.

JAMES EVERARD,	133d St., near Madison Ave., N. Y. C.
BEADLESTON & WOERZ,	W. 10th and Washington Sts., "
JOHN EICHLER,	169th St. and 3d Ave., "
BERGNER & ENGEL,	Philadelphia, Pa.
GERMANIA BREWING CO.,	" "

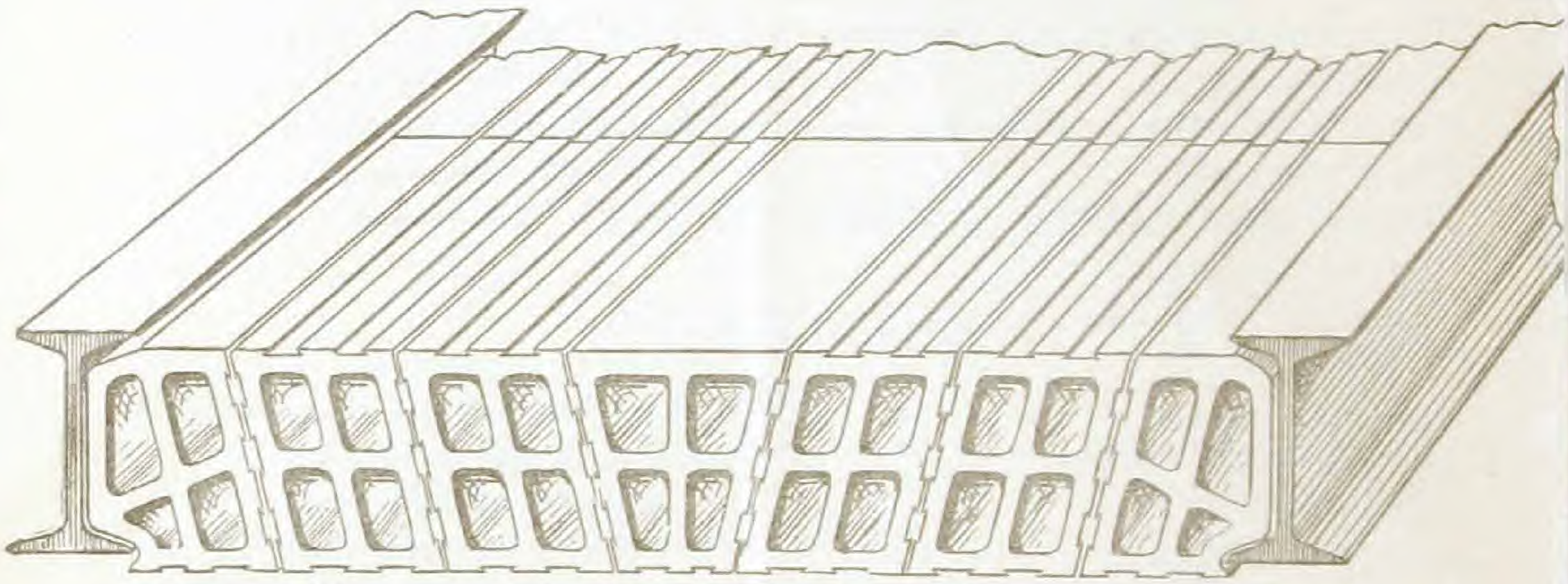
WAREHOUSES.

"HATCH" BUILDING,	402 & 404 Greenwich St., N. Y. C.
WAREHOUSE,	123d St. and 3d Ave., "
"	4th St. and Lafayette Place, "
"	343 Broadway, "
"	691 " "
"	Greene St., near Bleecker St., "
"	737 Broadway, "
"	806 " "
LINCOLN SAFE DEPOSIT CO.,	41st St., near 4th Ave., "

——AND OTHERS.——

Hollow Brick for Flat Arches,

Between Iron Beams for Floors.



SIZES:

DEPTH

6 x 6 x 12 inches.
7 x 6 x 12 "
8 x 8 x 12 "

DEPTH

9 x 8 x 12 inches.
10 x 8 x 12 "
12 x 8 x 12 "

Hollow Brick for Flat Arches,

FOR FLOORS AND CEILINGS.

THE Brick for the arches are make of hard burned fire clay, hollow, of equal vertical thicknesses, and laid in place in cement mortar, to "break joints" alternately. The number of brick to form an arch will vary according to size or distance between the iron beams in which they are to be laid; the two outer brick are called "skew backs" and are made with a shoulder so formed as to fit the flange of the beam and drop about ¾ inch below its soffit, to allow for an extra thickness of plaster as a protection to the under side of the beam (except where the beam is entirely protected as shown on page 3). The centre brick is the "key" and the "intermediate" brick are so placed that the whole mass, when laid, will form a self-supporting flat arch. All the brick are "dove-tailed" or grooved before being burned, in order to afford a rough surface for plastering which is applied directly on the bottom of the arch. The mode of setting these brick is as follows: A flat centre made of two inch planking being supported on 4x4 joists which are hung to the iron beam by means of hooks, hanging below the bottom flange of the beams at a proper level. After the arch is formed, giving sufficient time for the mortar to set, when the centres can be let down and removed to other places for further use.

Among some of the numerous and also great advantages possessed, the following can be mentioned:

A level ceiling and floor above. dispensing with the necessity for furring or lathing, also with the heavy concrete filling always necessary on top of the solid brick or corrugated iron arches.

A saving in weight of floor of 60 per centum, which admits of a great reduction in the weight of the iron beams and girders, thickness of the side walls, foundations, etc.

A saving in the thickness of the floors.

Work can be laid in any season of the year.

Great saving in the cost and time, as the work is dry almost as soon as laid.

Strength and elasticity to resist sudden impact.

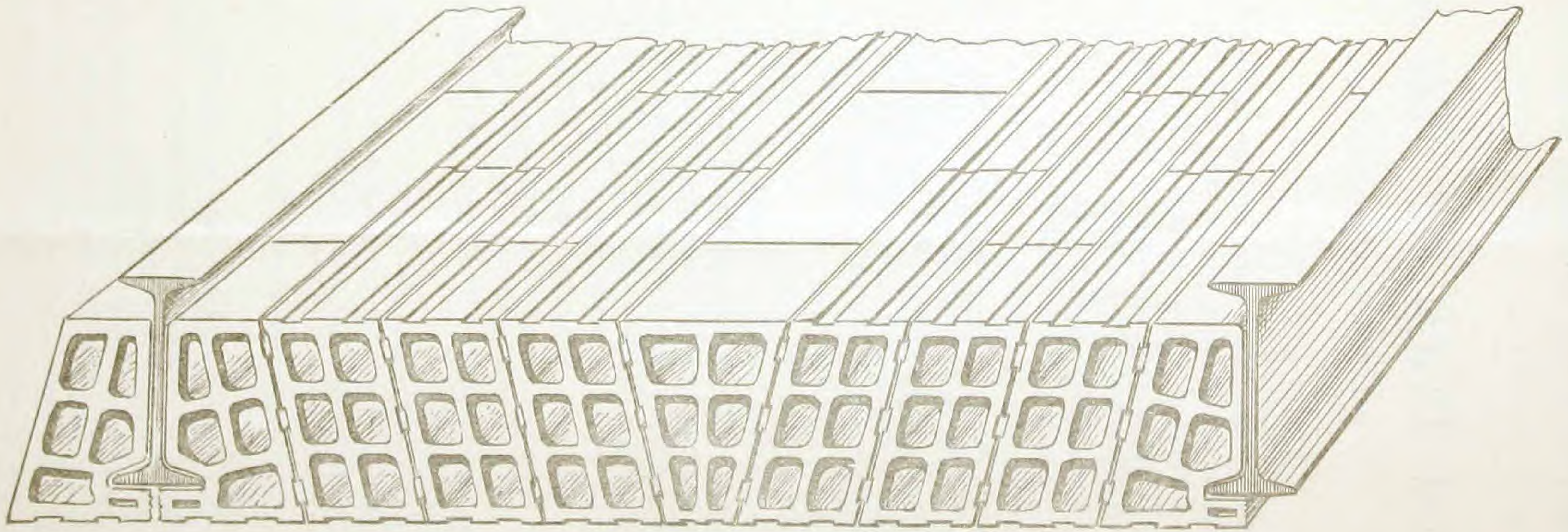
Rat and vermin proof.

And freedom from the unsightly cracks observed in floors constructed of materials affected by changes of temperature, causing expansion and contraction, thus destroying the plastering.

A room constructed of above mentioned arches and partitions is entirely fire proof, and should a fire break out therein, it could be confined there, not being able to spread either above or below or on sides, as this material, in course of manufacture, has been subjected to more fire than it could possibly receive in a conflagration.

Hollow Brick for Flat Arches between Iron Beams.

Showing the protection of Beams on "Skew-Back," or End Brick



Patented June 3d, 1884, by HENRY MAURER.

(*For Sizes See Page* 1.)

Hollow Brick for Flat Arches.

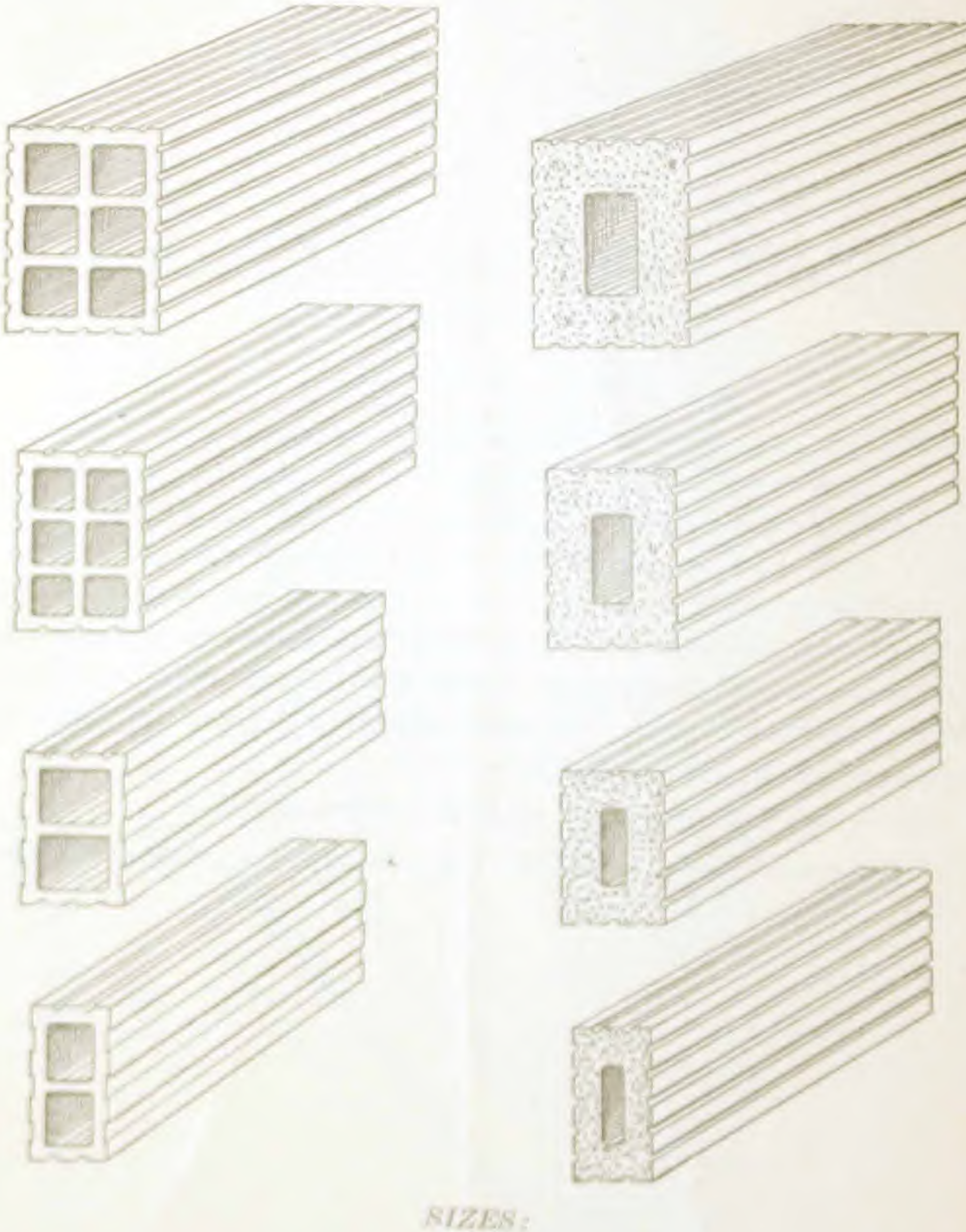
(IRON BEAM PROTECTION.)

THIS form of an arch for floors and ceilings of buildings is virtually the same as shown on Page 1, with the exception that the iron beam is thoroughly protected (as shown on cut opposite) by the "Skew Back" or end brick covering bottom flange of beam in such a manner that no iron is exposed whatsoever. It not only has the advantage of protecting the iron beams but also the plastering, keeping latter from rust stains, which sometimes appear when beams are not protected in this manner. In setting this arch the wooden centre is let down sufficiently to allow the flange on brick to go under and cover the beam.

It has been used largely and given thorough satisfaction.

Infringers of this patent will be prosecuted to fullest extent of the law.

HOLLOW BRICK AND POROUS TERRA-COTTA PARTITIONS.



SIZES:

3 x 6 x 12 inches.	5 x 7 x 12 inches.	7 x 5 x 12 inches.
3 x 9 x 12 "		
4 x 6 x 12 "	6 x 8 x 12 "	8 x 6 x 12 "

Hollow Brick and Porous Terra-Cotta Partitions.

THE construction of Fire-proof Partitions made of Hollow Burnt Clay Blocks has many invaluable advantages other than their fire-proof qualities.

They have the greatest degree of strength combined with lightness. Are entirely vermin proof and do not transmit cold or heat. Being hollow, all sound is deadened, and are absolutely free from dampness.

The importance of these undisputed facts are apparent.

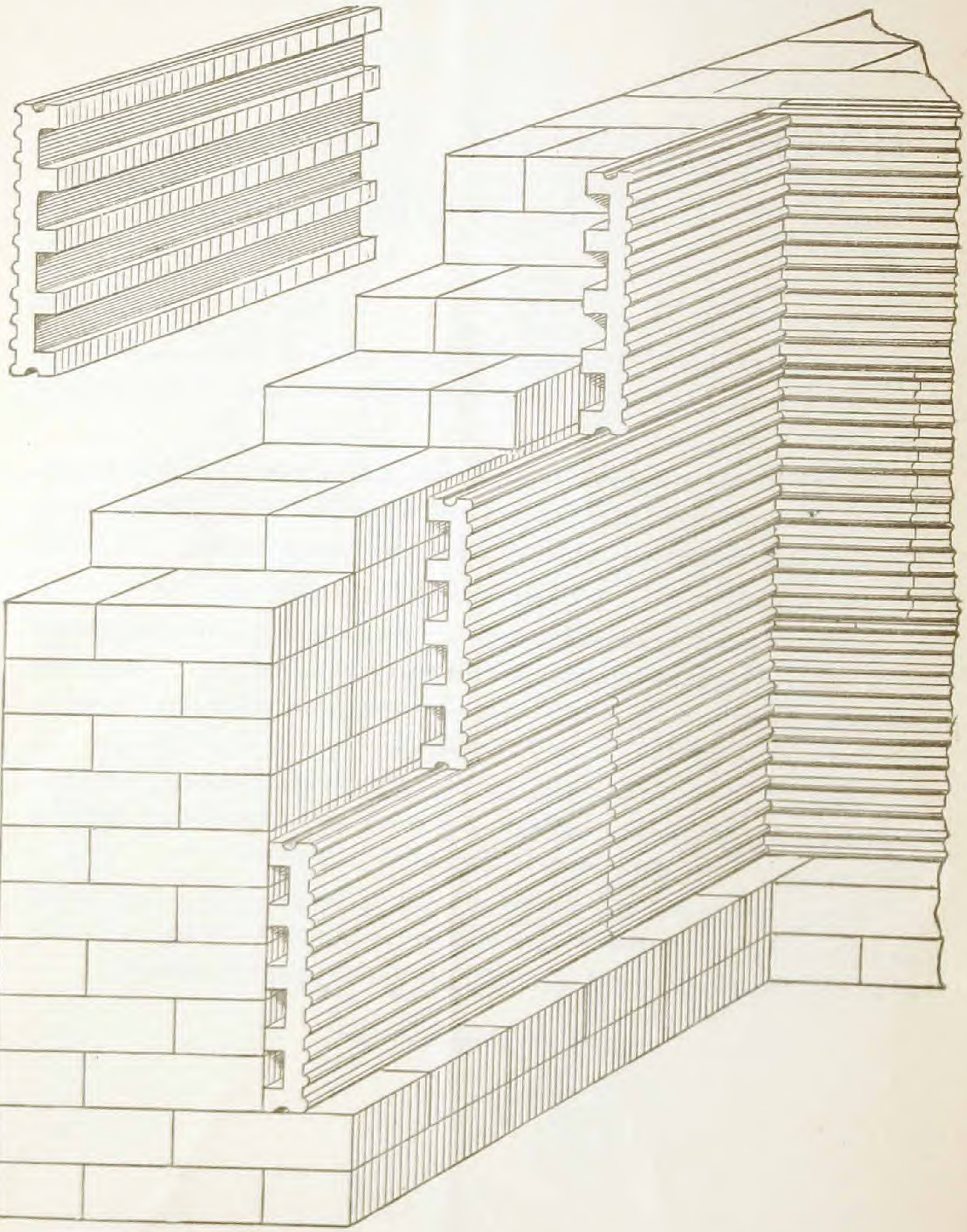
A partition built of these blocks is the most substantial form at present used. It is self-supporting, and perfectly secure against fire. The plaster is applied directly on the brick. The same being grooved or dove-tailed on the surface to allow the plaster a firm hold.

They can be placed in position by any Bricklayer in one-third the time required to lay common or ordinary Red Brick—We manufacture different sizes and of various thicknesses to meet all requirements.

Wherever it is necessary to drive a nail for the securing of base boards or wainscoting, the porous Terra-Cotta Blocks are used. A large quantity of all kinds always on hand, ready for prompt shipment or delivery.

(See Drawings Opposite.)

CLAY & POROUS TERRA-COTTA FURRING.



SIZE.

16 x 12 x 2 inches.

Clay and Porous Terra-Cotta Furring.

IT is very essential in making a building Fire-proof that all precautionary measures should be taken, and a very important feature is the protection of the outside or bearing walls, for which we manufacture Furring Tiles either of Hard Burnt Clay or Porous Terra-Cotta material. It prevents all dampness from penetrating, besides giving a circulation of air between the wall and furring tiles.

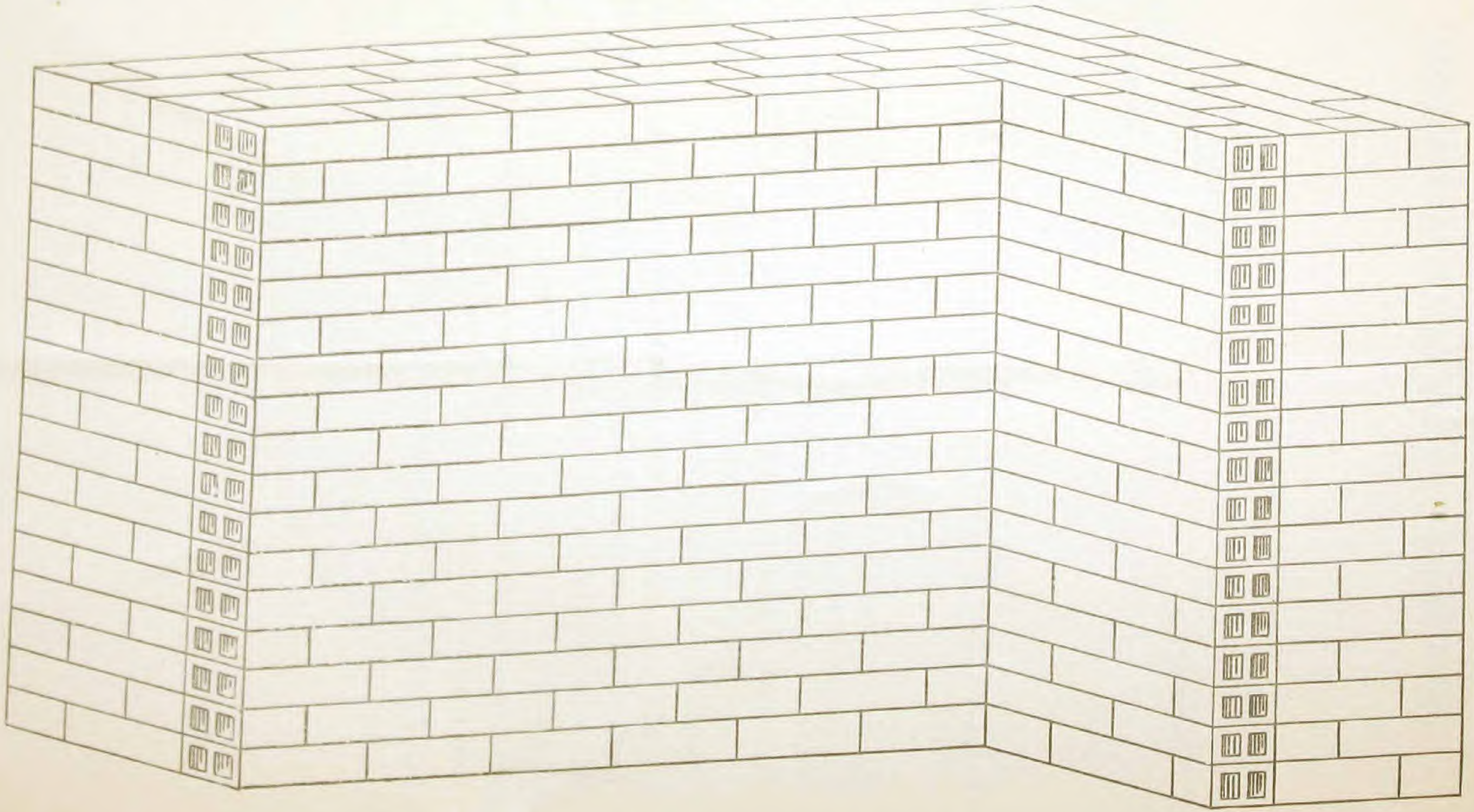
This mode entirely dispenses with the using of lath, as plaster can be applied directly on tiles. They are secured to the wall by setting same in gauged mortar, also by the use of flat-headed nails driven into the joints of the brick work at intervals.

Where Porous Terra-Cotta furring is used nails can be driven in any part of them.

Another style of furring can also be used, see pages 9 and 10.

Hollow Brick.

("HAVERSTRAW" SIZE) FOR WALL FURRING.



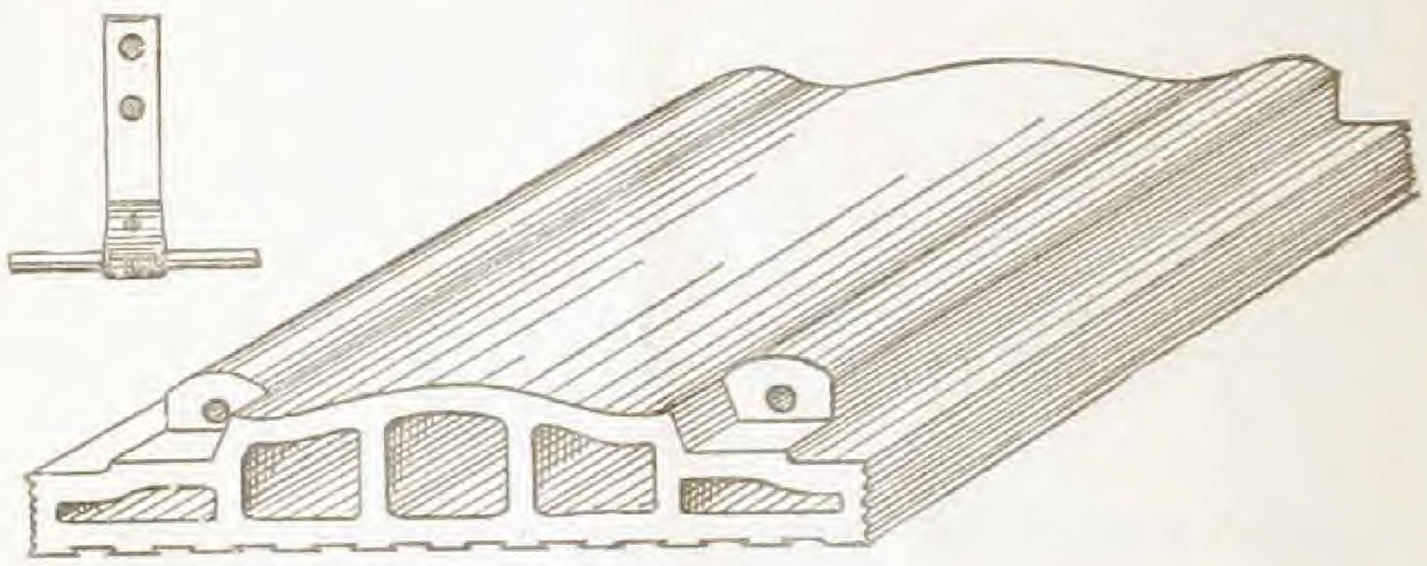
Hollow Brick.

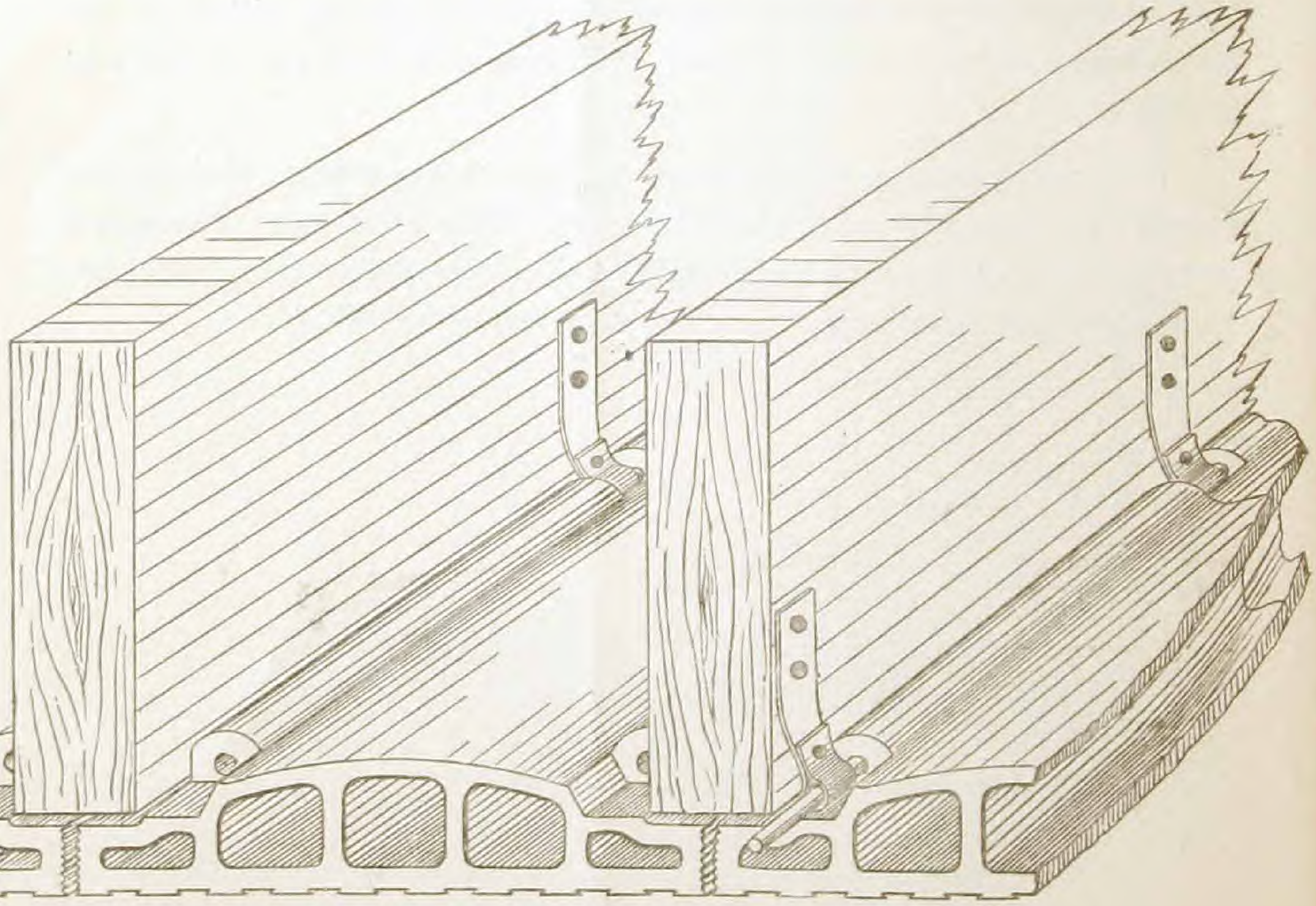
("HAVERSTRAW" SIZE.) FOR WALL FURRING.

THESE Brick are of the same dimensions as the "Haverstraw" or common building brick, and are used to form the inside face of the outside or bearing walls, thereby taking the place of furring either of fireproof material or lathing, without increasing the thickness of the wall itself.

They are grooved and roughened to receive the plaster directly, the hollow spaces preventing the moisture from striking through. The actual cost, by using these brick, is increased only by the difference in price between common brick and Hollow Brick, which is very little.

Hollow Brick for Wooden Beams.



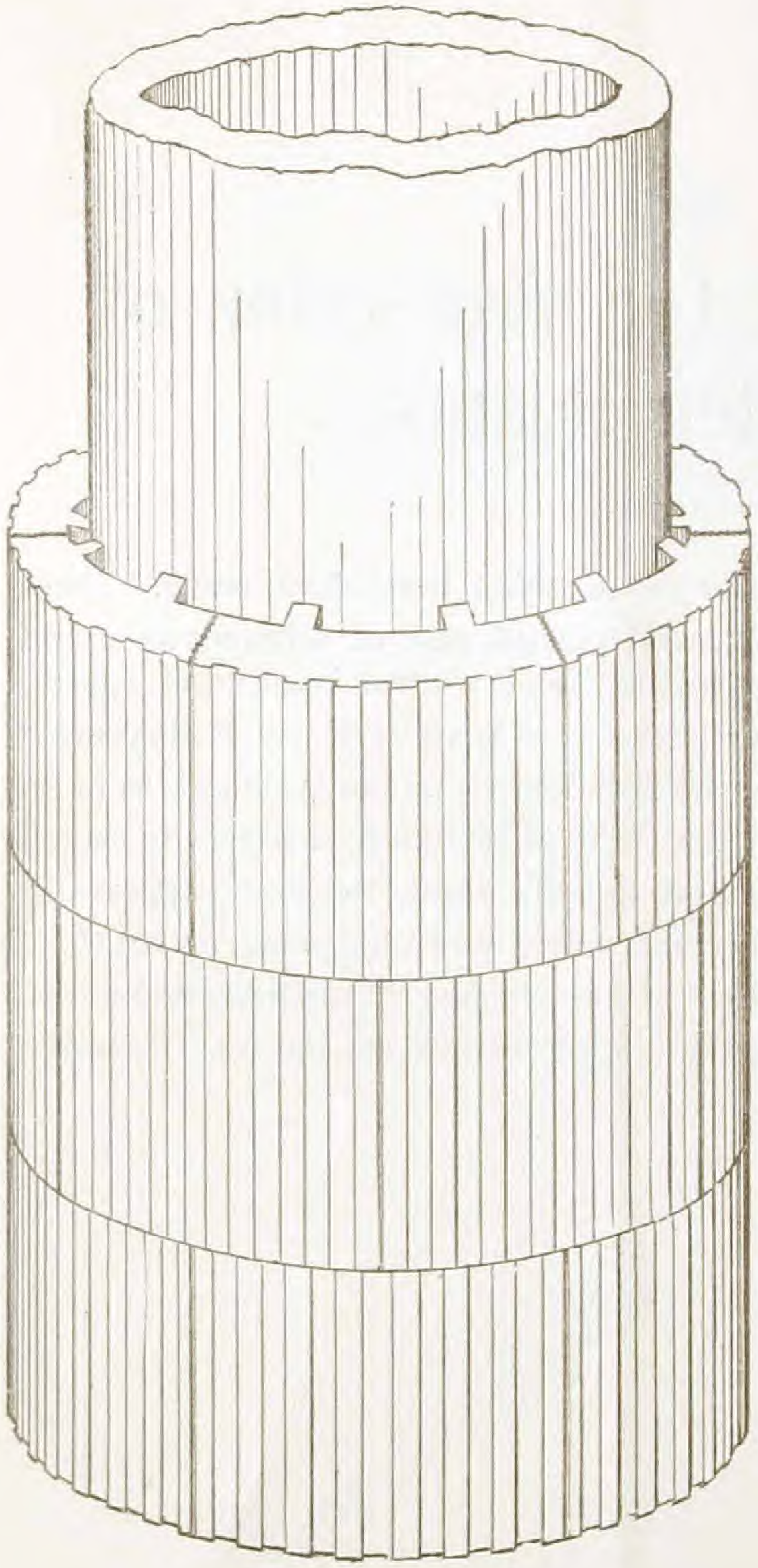


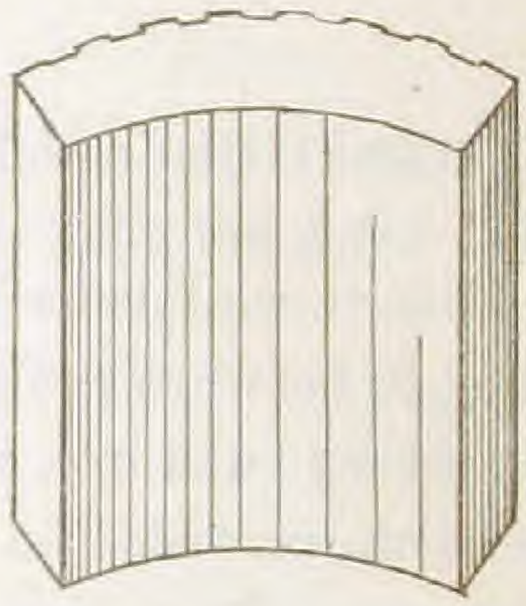
Patented by Henry Maurer.

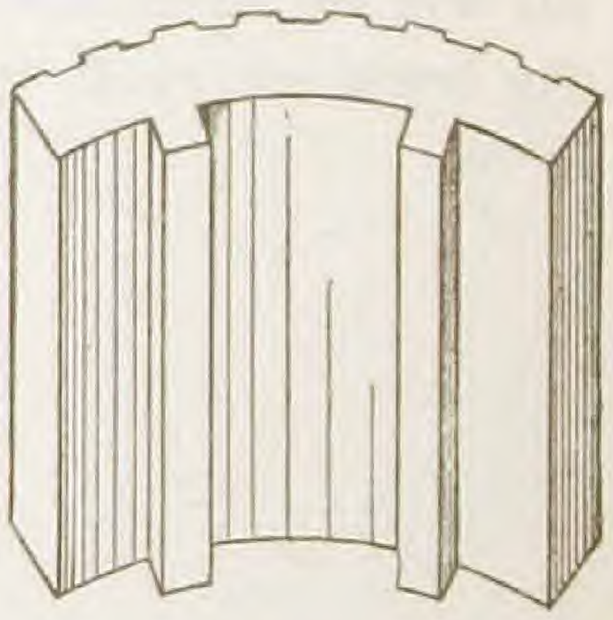
Hollow Brick for Protection of Wooden Beams.

SOMETHING novel and superior to anything heretofore made. These brick are made of Fire Clay, well burned, and of different sizes and widths to conform with various thicknesses of wooden beams and spaces, they fit between and protect the under side of beams and are held securely by strong band iron clamped to iron rods four (4) inches in length to fit an opening provided for them in upper edges of the brick, as shown in sketch opposite. They can be firmly and quickly hung without supports or centres. The simplicity of their construction and cheapness makes them the best and most desirable method of fire-proofing WOODEN BEAMS known. The brick are made to receive the plaster as soon as put up. Patented by us.

Fire-Proofing for Iron Columns.





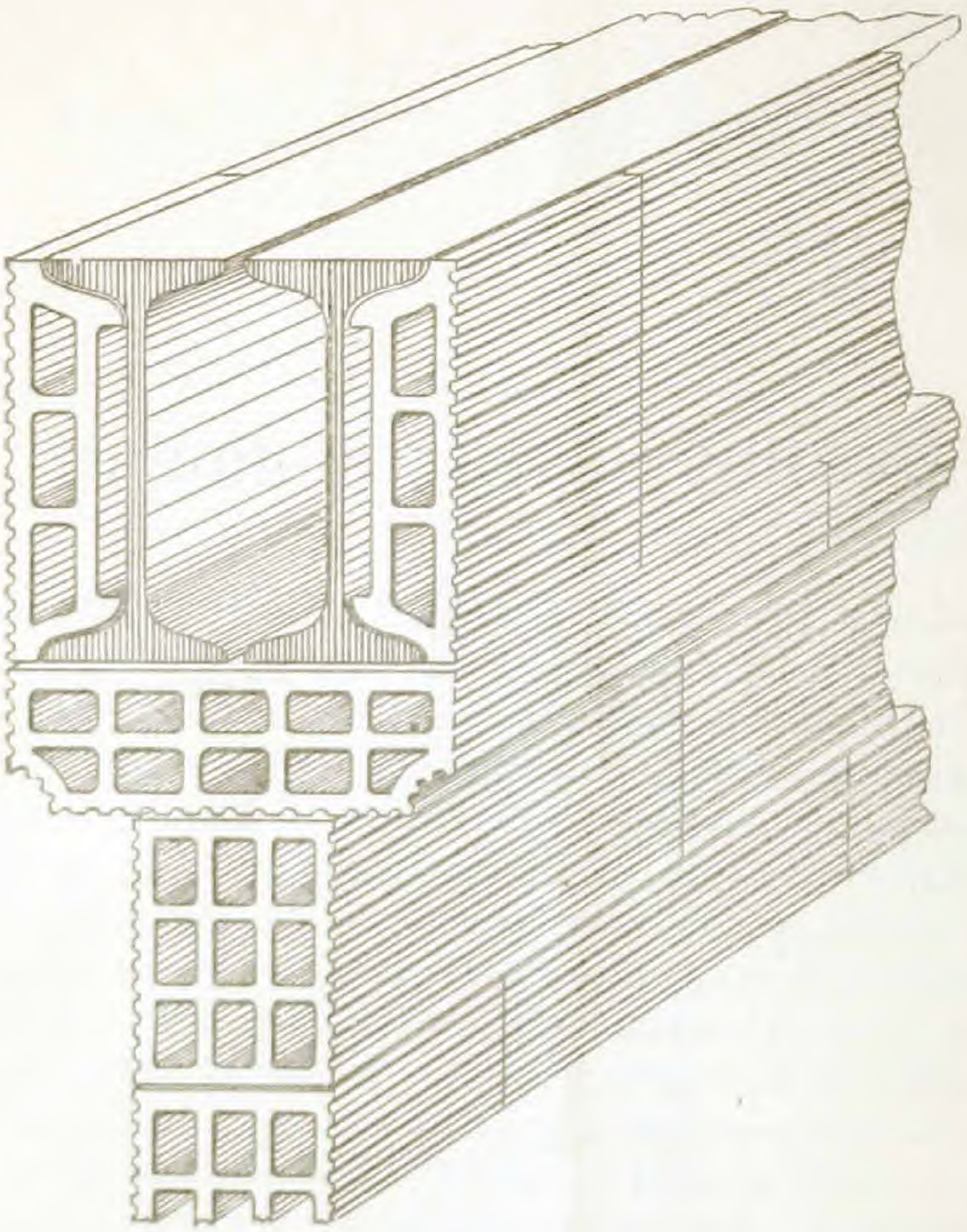


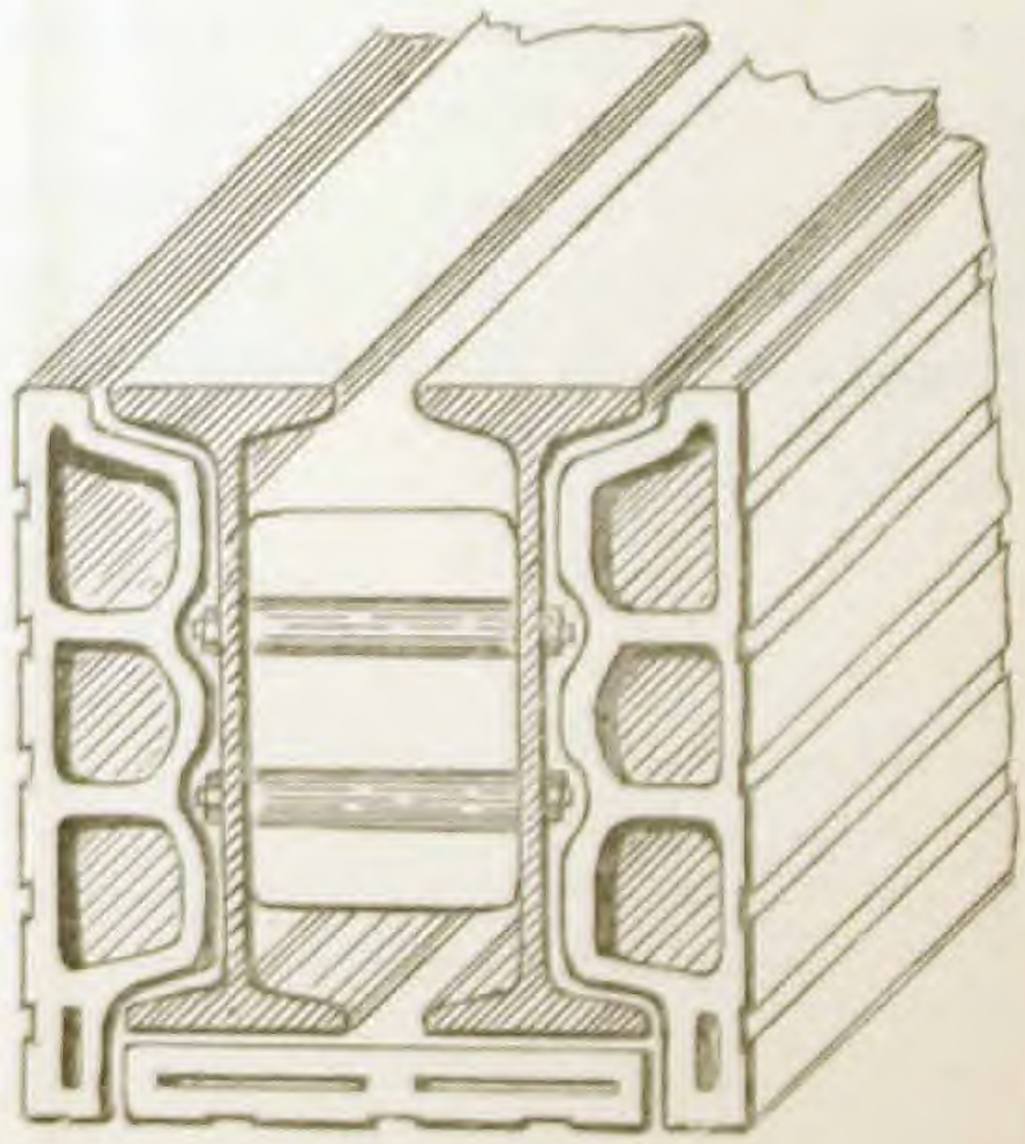
Fire-Proofing for Iron Columns.

THE destruction of Iron Columns by incipient fires has caused great losses. Their demolition during conflagration in buildings supposed to be fire-proof and in which incombustible materials of construction have been used, has shown the necessity of devising some feasible means of protecting them from intense heat under all circumstances. These disastrous effects have been intensified by the sudden throwing of cold water on the heated Columns causing them to buckle or break by contraction on the side upon which the water is thrown and consequently to collapse, taking away all support. In order to guard against such an occurrence it is necessary that they should be thoroughly protected. The use of Hollow Tile for this purpose has been promulgated by us for some years and we take pleasure in stating that it has met the approval of Builders and Architects generally without dissent. This form of covering (see illustration) is absolutely proof against fire. The air space in the tile preventing any injury whatsoever to the Columns.

The section of brick composing the circle are set with gauged mortar and to secure them more firmly, copper wire is used by wrapping same around the outside of columns, on brick.

Fire-Proofing for Iron Girders.





Fire-Proofing for Iron Girders.

A BUILDING cannot be called entirely Fire-Proof if any of the constructive Iron-work is exposed. We call your attention to our mode of protecting (on opposite page) Iron Girders. This material is made of Hard Burnt Clay and also of Porous Terra-Cotta, and designed in various shapes and sizes to meet all requirements.

It is secured by means of band-iron made to fit in recesses in brick and then fastened to girders.

Clay and Porous Terra-Cotta Tiles

FOR ROOFS AND HANGING CEILINGS.

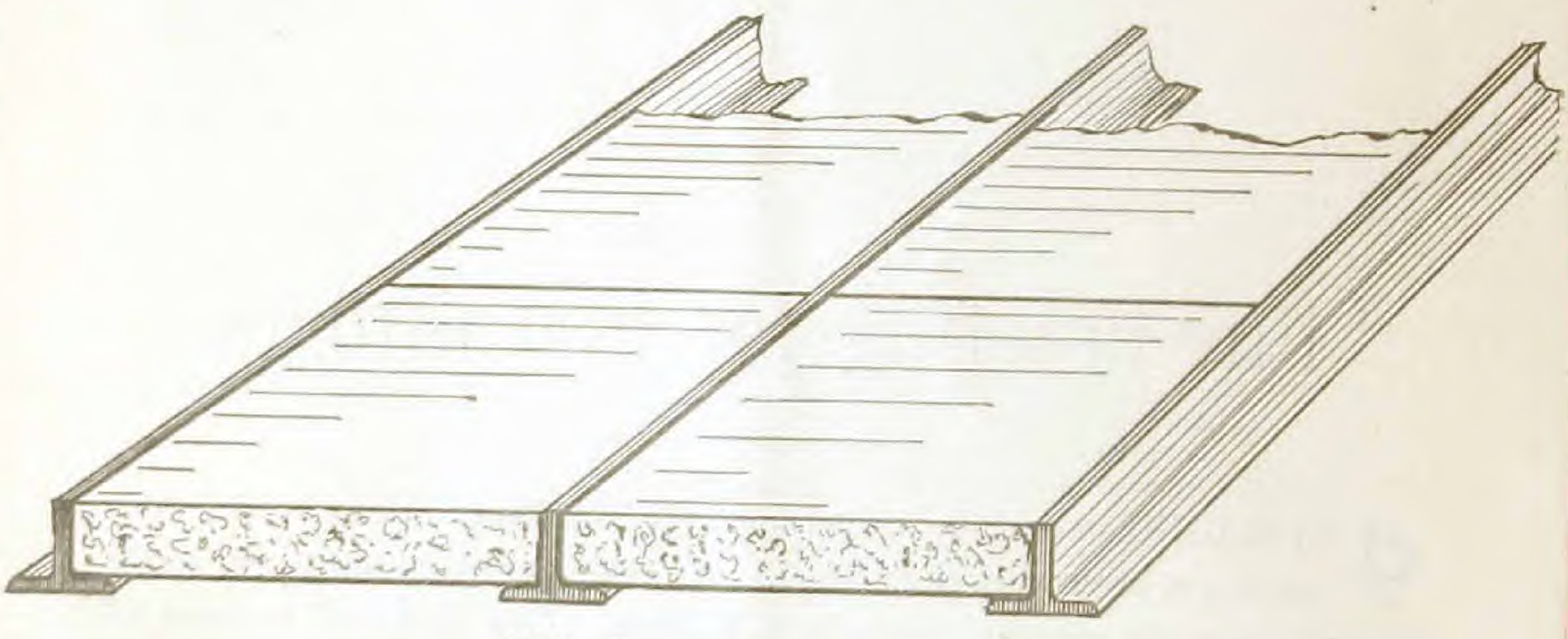


FIG. I.

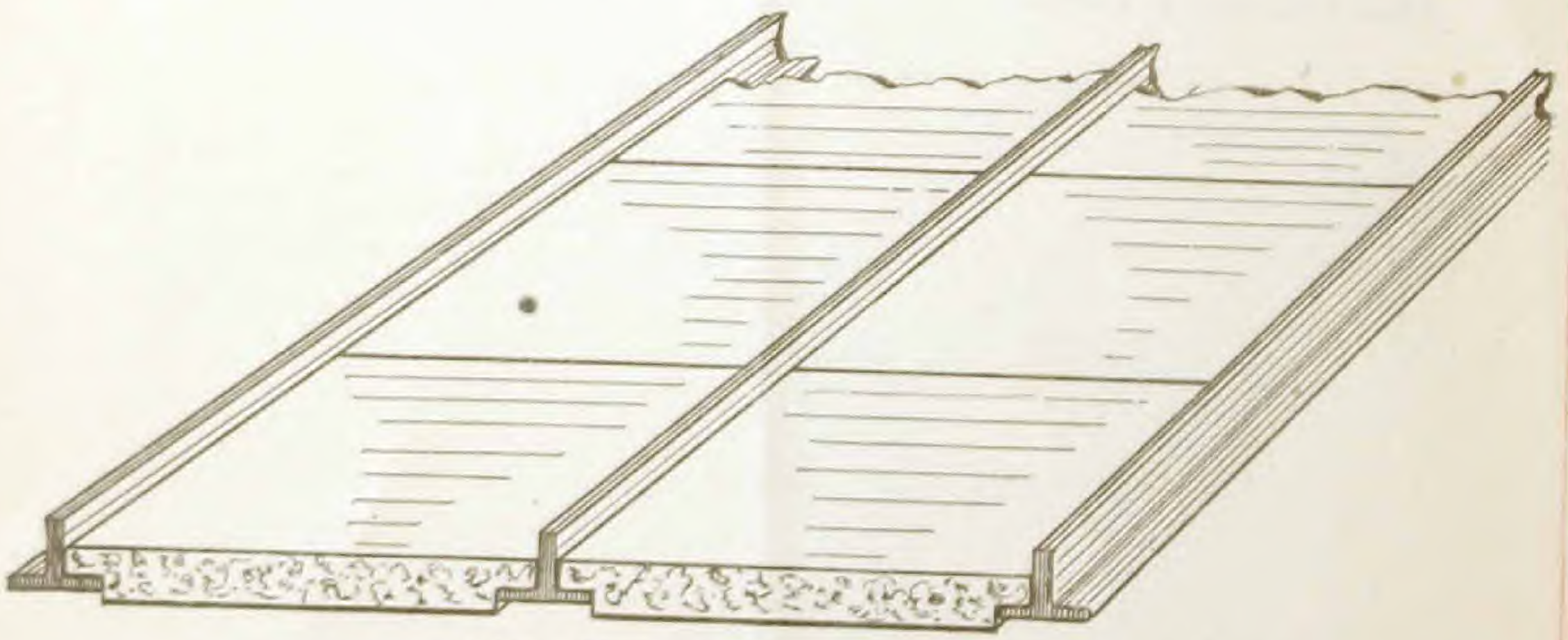


FIG. II.

SIZES.

12 x 16 x 2 inches.—12 x 18 x 3 inches.—12 x 20 x 3 inches.—12 x 24 x 3 inches.

Clay and Porous Terra-Cotta Tiles

FOR ROOFS AND HANGING CEILINGS.

WHILE recognizing the necessity of a dry roof, we contend that Fire-proof qualities are equally essential, and the advantage of having both is a matter worthy the attention of the building public. In buildings where the roof is flat and the construction is of iron, a flat arch of Hollow Burnt Clay Blocks is laid between the beams in the same manner as the floor arches (also as shown on page 19). Only the weight provided for need not be so great. Hence the Beams and the Arch blocks can be made lighter. In a pitched roof the form of erection is the same as the drawing on opposite page, Fig. I, to which we call your attention. The ⊥'s are usually placed from 16 to 24 inches apart, and Porous Terra-Cotta Tiles of any desired thickness are set in to come flush with the top of the ⊥. They are then covered on the outside with slate or tin. The material readily admits driving of nails, and holds as securely as wood.

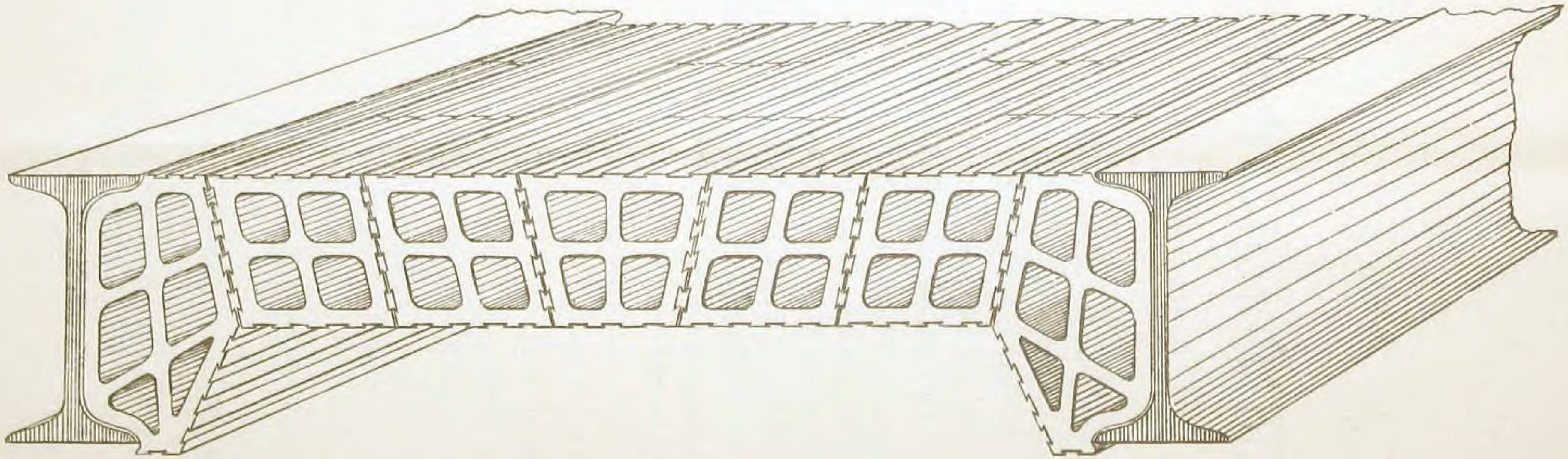
In Mansard Roofs the ⊥'s are set vertically, and the tiles are placed in position in the same way.

If it is desired to have a roof made segmental of red building brick, a horizontal ceiling can be constructed of **I** beams and fire-proof ceiling suspended, made of Porous Terra Cotta material as shown in Fig. II, opposite, and be plastered and finished directly, thus making a flat ceiling. The same material is applicable to wooden beams or rafters in the construction of roofs or ceilings, and in fact protecting all exposures whether they be wood or iron.

For Roofs, Hard Burnt Clay Tiles can also be used as well as the Porous Terra-Cotta.

Hollow Brick for Flat Arches.

SUPPORTED ON RAISED "SKEW RACKS."



FOR ROOFS, ETC.

Hollow Brick for Flat Arches.

FOR ROOFS, STOREHOUSES, &c., SUPPORTED ON RAISED "SKEW BACKS."

THIS style of Arch is generally used in cases where beams are deep and no finish is required; for the Flat Arch small brick can be used at a less expense than the large, and thus all necessity for concrete filling on top is dispensed with. It will be found useful in the construction of flat roofs, thereby saving expense and weight, both in beams and brick.

Segment Arches.

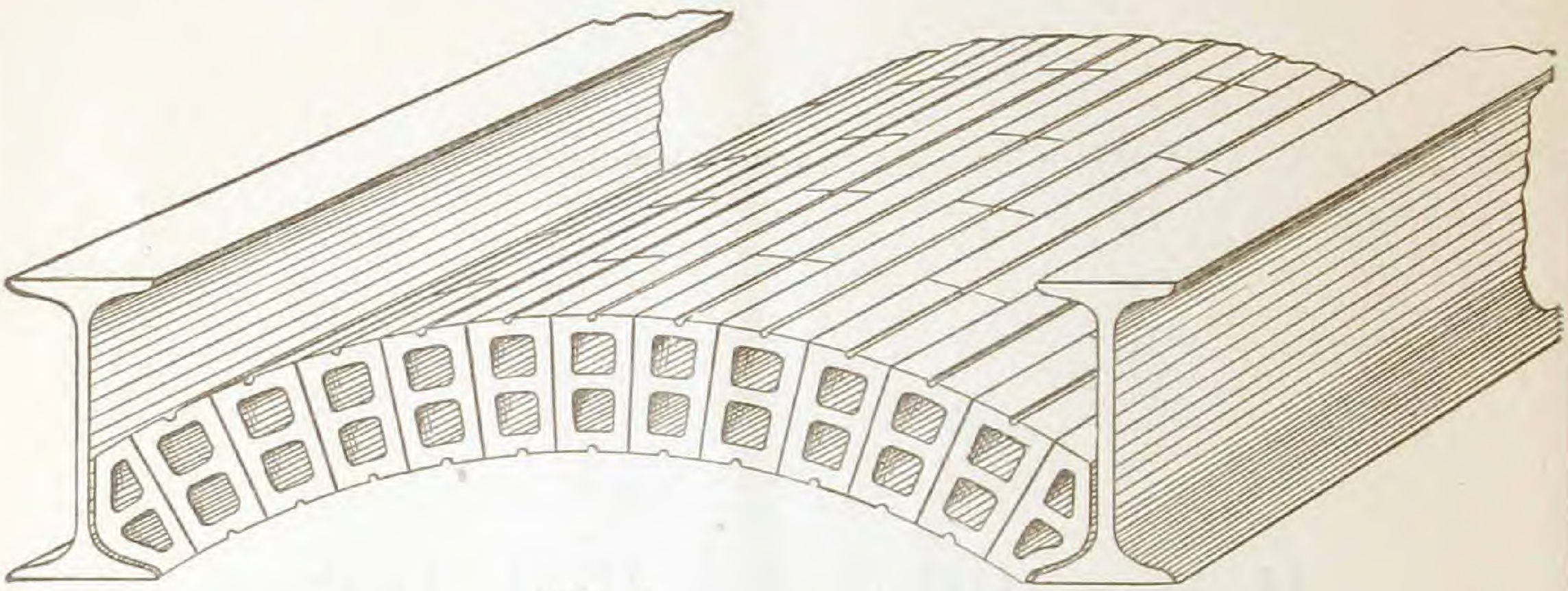
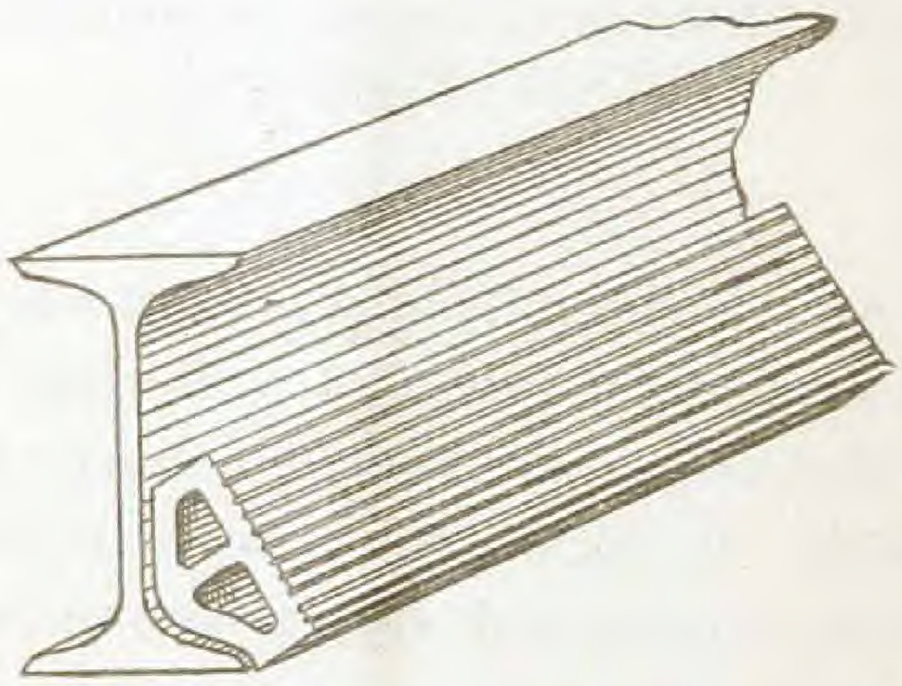


FIG. I.



SIZE OF SQUARE BRICK, 8 x 4 x 2$\frac{1}{4}$ inches.
SIZE OF "SKEW BACK," 12 x 4 x 2$\frac{1}{4}$ "

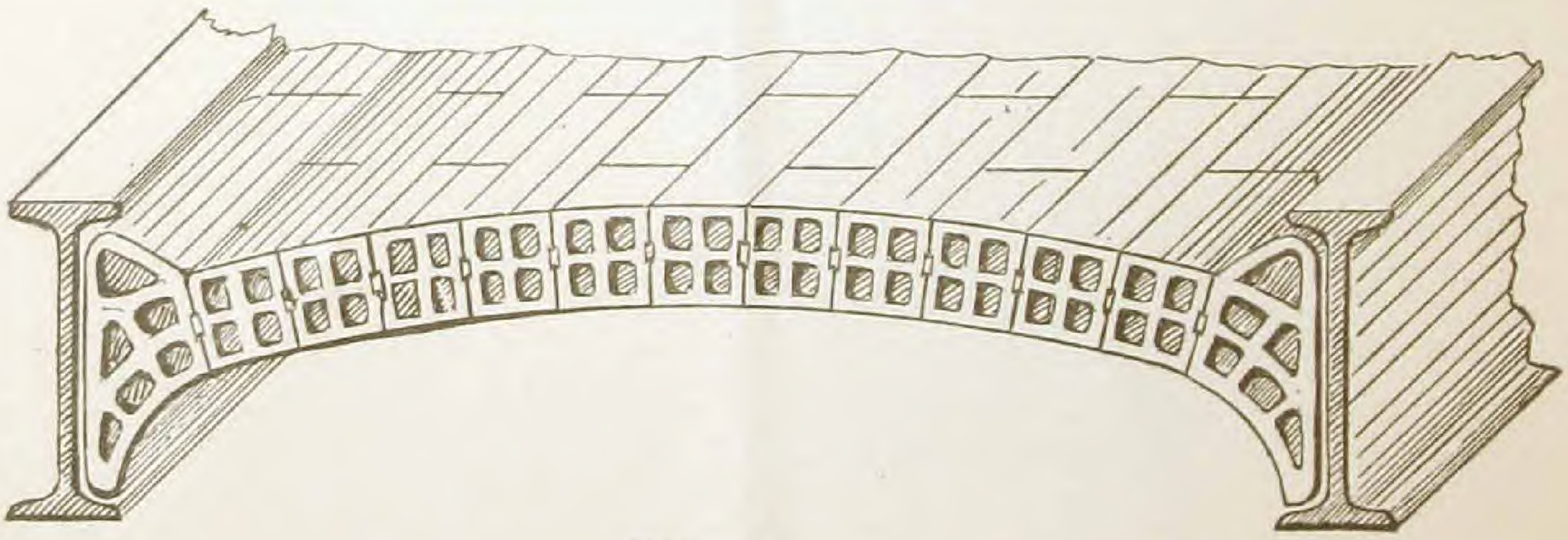
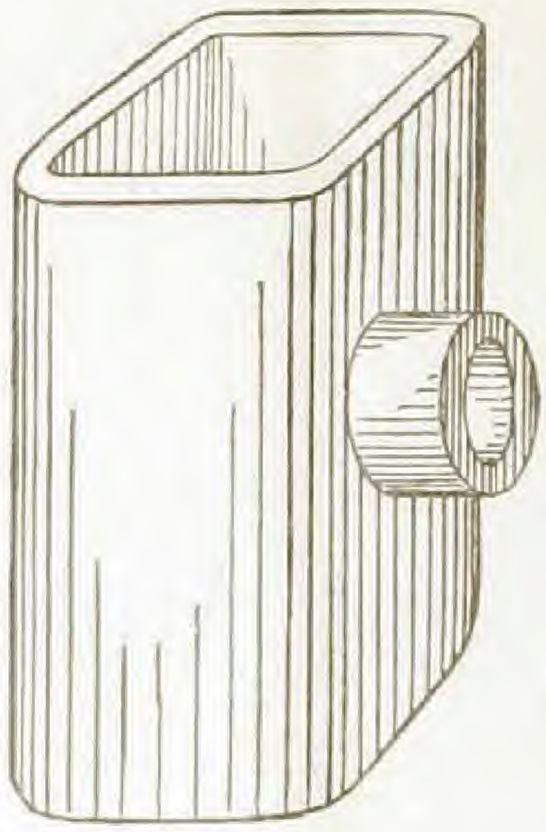


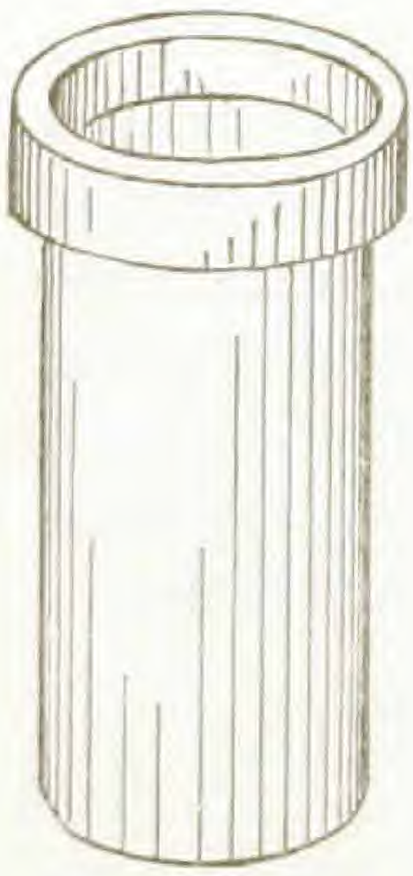
FIG. II.

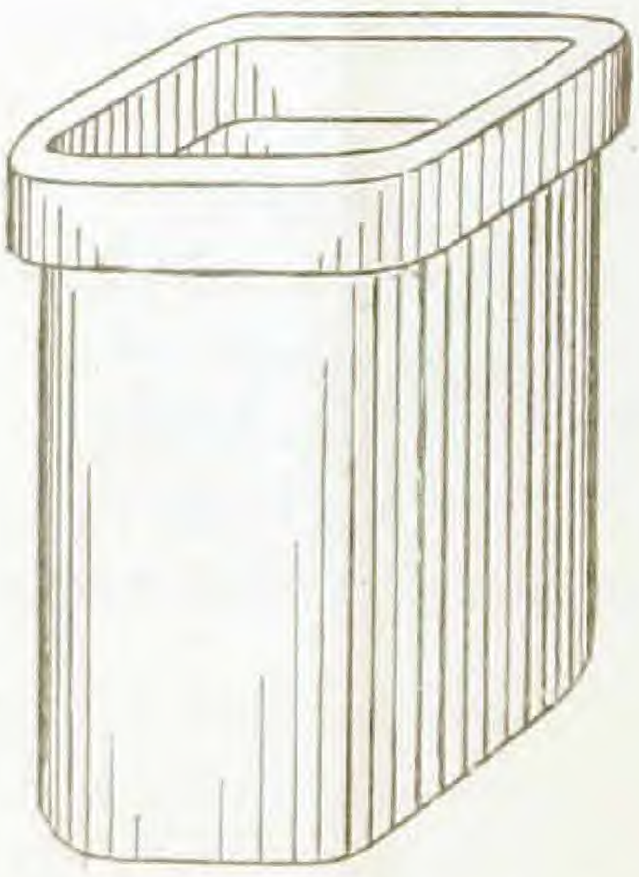
Segment Arches.

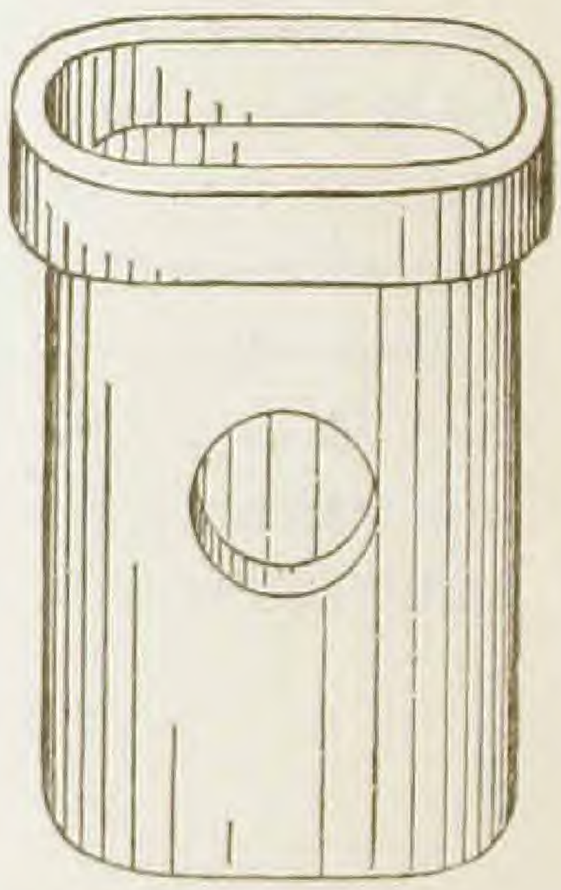
THIS form of Arch is used largely in Warehouses, Factories, Breweries, Stores, &c., where a flat ceiling is not necessary. Besides being made of Red or common building brick, it is also constructed of small Hollow brick, Fig. 1, same size as above brick, thus saving great amount of weight, the cost being but a mere trifle over the former. It can also be made of hollow brick 6" deep with raised skew-backs, as shown in Fig II. The Hollow brick are equally as strong as solid brick, thereby making a strong as well as a light arch. Where either Hollow or solid brick are used, we manufacture "skew-backs" or end brick, to form the sides or abutments of the arch, saving the labor of cutting square brick to fit beams.

Fire-Clay Flue Linings.









The following is a list of flue linings, both square and round:

FLUE AND CHIMNEY LININGS.

IN TWO FEET LENGTHS.

4½	inches	x 8½	inches,	outside	measure.
4½	"	x 13	"	"	"
4½	"	x 17	"	"	"
8½	"	x 8½	"	"	"
8½	"	x 13	"	"	"
8½	"	x 17	"	"	"
13	"	x 13	"	"	"
13	"	x 17	"	"	"
17	"	x 17	"	"	"

ROUND FLUES.

IN TWO FEET LENGTHS.

6	inches	inside measure.
8	"	"
9	"	"
10	"	"
12	"	"
15	"	"
18	"	"
20	"	"
24	"	"

Sockets or Collars only made to order.

Fire-Clay Flue Linings.

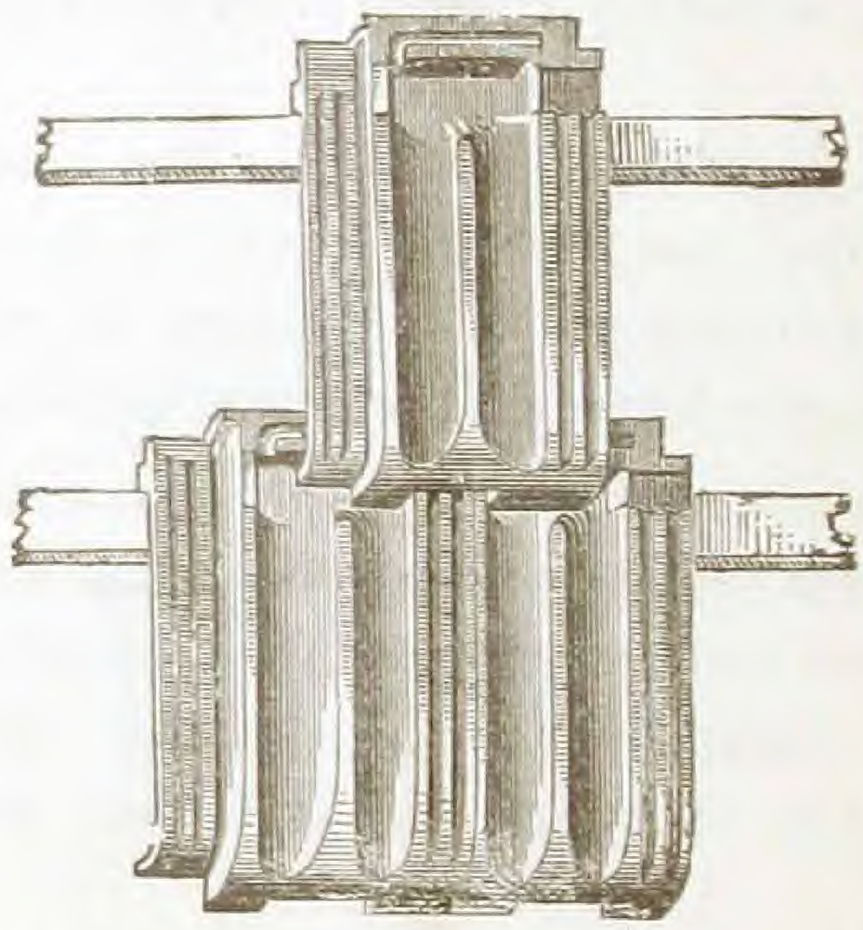
WE manufacture Fire-Clay Linings of all descriptions, round, square and oval.

The efficiency of Fire-Clay Flue Linings has been thoroughly tested and approved, and are now recommended by leading architects and builders as a necessity for the proper protection of buildings against fire. Insurance Companies give better rates on buildings constructed with them.

They are superior to metal as conductors of hot air, and will carry the heat with less loss from radiation; are safer, being made out of non-conducting materials, and will not transmit the heat to wood coming in contact with them; are cheaper and more durable; are used for chimney linings, for partitions in chimneys, for conducting hot and cold air, for ventilation, etc.

Register, Pipe Openings and odd shapes made on short notice.

Clay Roofing Tiles.



SIZE, 8 x 14 inches (to the weather.)

Or 128 Tiles to 100 Square Feet.

Clay Roofing Tiles.

THESE Tiles are made of Hard Burnt Clay (design as shown opposite) and are used on Pitched and Mansard Roofs. They are held on the iron or wooden rafters by projections on inside of tile so formed as to take hold of rafter, besides one over-lapping the other, and also by means of wire fastened to rafter on lower part of Tiles, their own weight holding them in position.

The moderate cost and fire-proof qualities of these Tiles make them a favorite roofing, especially in warm climates, making a cool roof. Besides being used for Dwellings, they are used largely for Factories, Mills, Warehouses, Depots, etc., etc.

TABLE OF WEIGHTS, &c.

Hollow Brick for Flat Arches.

WIDTH OF SPAN BETWEEN IRON BEAMS.	DEPTH OF ARCH.	WEIGHT PER SQUARE FOOT.	SAFE LOAD PER SQUARE FOOT.	REMARKS.
3 ft. 6 in. to 4 ft. 0 in.	6 in.	29 lbs.	1,000 lbs.	
4 ft. 0 in. to 4 ft. 6 in.	7 "	33 "	1,200 "	
4 ft. 6 in. to 5 ft. 0 in.	8 "	37 "	1,400 "	
5 ft. 6 in. to 6 ft. 0 in.	9 "	40 "	1,500 "	
6 ft. 0 in. to 6 ft. 6 in.	10 "	43 "	1,500 "	
6 ft. 6 in. to 7 ft. 0 in.	12 "	48 "	1,800 "	

Partitions.

	THICKNESS.	WEIGHT PER SQUARE FOOT.	REMARKS.
Hollow Brick (Clay) Partitions.	3 in.	14 lbs.	
" " "	4 "	18½ "	
" " "	5 "	23 "	
" " "	6 "	25 "	
" " "	7 "	31 "	
" " "	8 "	34 "	
Porous Terra-Cotta "	3 "	12 "	
" " "	4 "	17 "	
" " "	5 "	23 "	
" " "	6 "	27 "	
" " "	7 "	31 "	
" " "	8 "	36 "	

Furring, Roofing and Ceiling.

	THICKNESS.	WEIGHT PER SQUARE FOOT	REMARKS.
Hollow Clay Furring.	2 in	12 lbs.	
Porous Terra-Cotta Furring	2 "	8 "	
" " Roofing	2 "	12 "	
" " "	3 "	16 "	
" " Ceiling	2 "	11 "	
" " "	3 "	15 "	

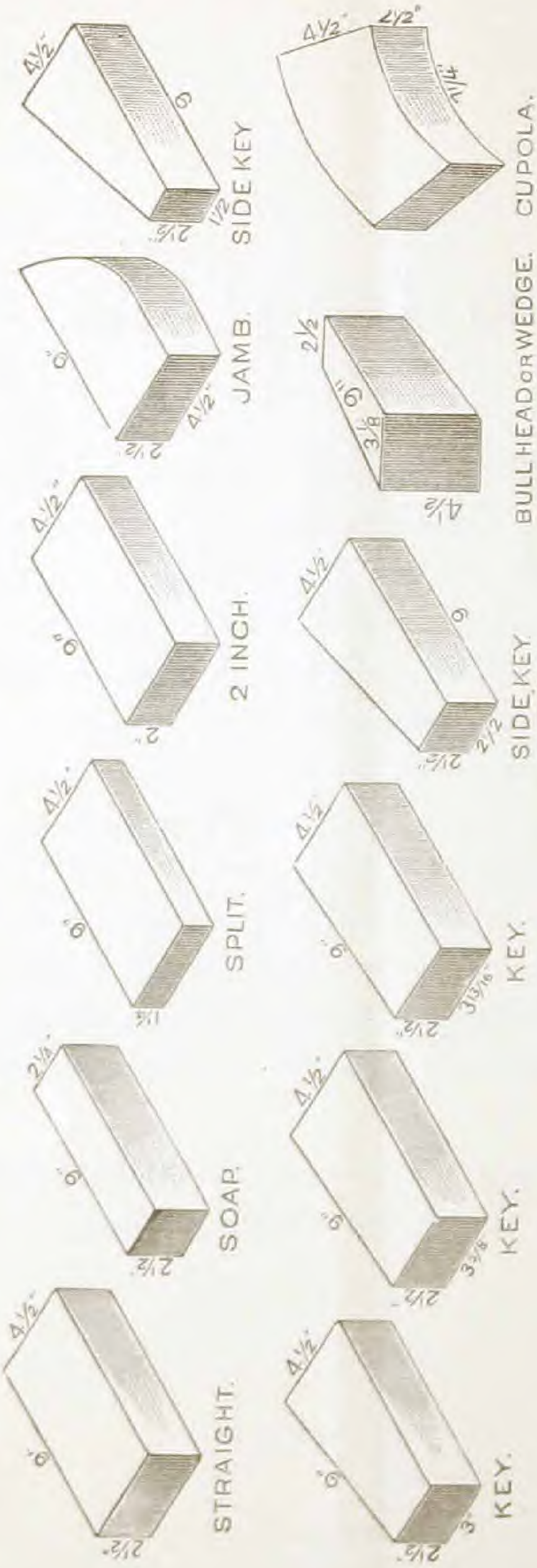
"Haverstraw" size, Hollow Brick, per M—3,000 lbs.

Porous Terra-Cotta.

FOR the information of those who are not entirely familiar with the material substance of "Porous Terra-Cotta," we offer the following explanation: It is a mixture of Clay and Sawdust, or any other combustible matter can be substituted (in place of sawdust) such as fine shavings, tanbark, charcoal, &c. After the compound is properly mixed, the brick or tiles are moulded, and when sufficiently dry, are placed in a kiln prepared for the purpose, and subjected to an intense heat, adequate to consume all the combustible mixture, leaving the brick porous, and at the same time reducing the weight materially—the fire-proof qualities remaining intact. This material is utilized in many ways; as it readily admits driving of nails, and being of a tenacious quality, holds equally as fast as if driven in wood. For Partitions, Furring, Column Covering, Roof and Ceiling Tiles, &c., it is particularly adapted. It receives and holds plaster admirably.

We justly pride ourselves upon the superior quality of this material, being thoroughly uniform in size and burning, things which are very essential.

Fire Brick.



Names for Standard Shaped Fire Brick, as adopted by The Fire Brick Manufacturers' Association, October 12th, 1881.

MANUFACTURERS OF

FIRE BRICK

OF ALL SHAPES AND SIZES,

—FOR—

Rolling Mills,

Oil Works,

Iron Works,

Blast Furnaces,

Steel Works,

Copper Works,

Glass Works,

Cupolas,

Etc., Etc.

CLAY RETORTS FOR GAS WORKS.

For particulars of above, see our Illustrated Circular on "FIRE BRICK," which can be had on application at our New York Office.

Red (common and pressed) Building Brick.

WITHIN the past year we have erected an extensive plant for the manufacture of common and pressed brick (this works being entirely separate from our other factory). We take pleasure in stating that the brick made by us are equal to any in the market. We are prepared to fill orders by vessel and rail shipment to any point.

Shipping Facilities.

OUR Shipping facilities are unequalled both by Rail and Water, having direct connections as follows, tracks leading into works, viz.:

Central R. R. of New Jersey, Philadelphia & Reading R. R., Lehigh Valley R. R. and Pennsylvania R. R., making connections with all other roads in New York and New Jersey, to all parts of the United States and Canada; also by water to all points reached in United States and South America, without re-handling.